

Reference to Pending Applications

This application is a divisional application taken from pending United States Patent Application Serial No. 09/925,988 filed on August 09, 2001 entitled AN OBTURATOR SYSTEM FOR FILING A ROOT CANAL AND METHOD OF USE THEREOF (to be issued on November 11, 2003 into Patent No. 6,644,972) which is a continuation of U.S. Patent Application Serial No. 09/481,611 filed January 12, 2000 (issued on November 6, 2001 into Patent No. 6,312,261).

IN THE CLAIMS:

Please delete Claims 1-~~22~~²⁵ of the original application and replace with new Claims 1-16 as shown below:

- 1 1. A method of filling an endodontically prepared root canal of a tooth comprising:
 - 2 applying filler material to the external surface of a distal portion of an elongated
 - 3 structural shaft, the shaft having sufficient rigidity to serve as a vehicle for carrying said
 - 4 filler material into lowermost portions of a root canal;
 - 5 inserting said proximal portion of said shaft having said filler material thereon
 - 6 into the root canal;
 - 7 applying sound energy to said shaft at a frequency sufficiently high to cause said
 - 8 shaft to vibrate at a rate that thereby the surface tension of said filler material is
 - 9 substantially decreased allowing said shaft to be removed leaving said filler material in
 - 10 the root canal.
- 1 2. Method according to Claim 1 including:
 - 2 affixing a signal generating temperature sensor to said shaft and using a signal

3 generated by said temperature sensor to control said application of sound energy to said
4 shaft.

1 3. The method according to Claim 1 wherein said shaft is of metal.

1 4. The method according to Claim 1 wherein said shaft is of plastic or fiberglass.

1 5. The method according to Claim 1 wherein said step of applying sound energy to said
2 shaft is accomplished by employing sonic energy.

1 6. The method according to Claim 1 wherein said step of applying sound energy to said
2 shaft is accomplished by employing piezoelectric energy.

1 7. An obturator system for filling an endodontically prepared tooth root canal comprising:
2 an elongated shaft having a proximal portion and a smooth distal portion;
3 filler material applied onto said shaft distal portion, said shaft having sufficient
4 rigidity to serve as a vehicle for carrying said filler material thereon into the lowermost
5 portions of a tooth root canal; and
6 a source of sound energy that is applied to said shaft at a frequency sufficiently
7 high to cause said shaft to vibrate at a rate that thereby the surface tension of said filler
8 material is substantially decreased allowing said shaft to be removed leaving said filler
9 material in the root canal.

1 8. An obturator system according to Claim 7 wherein said source of sound energy is a
2 source of sonic energy.

1 9. An obturator system according to Claim 7 wherein said source of sound energy employs
2 piezoelectric energy.

1 10. An obturator system according to Claim 7 wherein said source of sound energy is a laser.

1 11. An obturator system according to Claim 7 wherein said coil is telescopically removable
2 from said shaft.

1 12. An obturator system according to Claim 7 including a signal generating temperature
2 sensor affixed to said shaft.

1 13. An obturator system according to Claim 12 including:
2 circuitry including said temperature sensor by which said source of sound energy
3 is controlled in response to the temperature of said shaft.

1 14. A method of filling an endodontically prepared root canal of a tooth comprising:
2 applying filler material to the external surface of a distal portion of an elongated
3 structural shaft having sufficient rigidity to serve as a vehicle for carrying said filler
4 material into lowermost portions of a root canal;

5 inserting said proximal portion of said shaft having said filler material thereon
6 into the root canal;

7 applying energy to shaft of sufficient intensity to decrease the surface tension of
8 said filler material; and removing said shaft leaving said filler material in the root canal.

1 15. The method of filling an endodontically prepared root canal according to Claim 14
2 wherein the step of applying energy to said shaft is accomplished by the application of
3 sonic energy.

1 16. The method of filling an endodontically prepared root canal according to Claim 14
2 wherein the step of applying energy to said shaft is accomplished by the application of
3 piezoelectric energy.